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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,245	01/05/2001	Fuyun Ling	PA000441	3761

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

WAHBA, ANDREW W

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/755,245

Applicant(s)

LING ET AL.

Examiner

Andrew W Wahba

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.8.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-41 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claims 1, 4, 8, 11, 12 and 25 reference a "set point". The Office believes that this term references the type of modulation, such as BPSK, QPSK, 16QAM, etc. The applicant can clarify the meaning of the term "set point" by pointing to the area of the specification that defines or explains it.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 4, 6, 7, 8, 9, 12, 13, 14, 19, 20, 23, and 25-32 rejected under 35 U.S.C. 102(e) as being anticipated by Olofsson et al (US Patent 6,167,031). Olofsson

et al discloses a method for selecting a combination of modulation and channel coding schemes on a RF link as illustrated in Fig. 8 and Fig. 9.

With regard to claims 1, 4, 8, and 12, Olofsson et al discloses a Block 801 in which link quality parameters of an RF link (selecting ... signal) are measured. Link quality parameters include C/I, signal strength, time dispersion on burst level, and BER (calculating a bit error rate) (column 11, lines 34-41). In block 803, the distribution of the channel characteristic measures may be calculated statistically in terms of mean values and variances (calculating a variance) of link quality parameters (column 11, lines 43-15). In block 811, optimum combination of modulation and channel coding schemes is selected (calculating ... set point) (column 11, line 66 – column 12, line 5).

With regard to claim 2, 6 and 9, the method disclosed by Olofsson et al may be applied to any RF signal, including the applicant's forward link power control sub-channel.

With regard to claim 7, Olofsson et al discloses that the disclosed method is performed at a receiver that may be either the mobile station (subscriber unit) or base station (column 11, line 33-35).

With regard to claim 13, the applicant claims the calculator for calculating the bit error rate in which the received signal symbols are compared to a predetermined symbol sequence. A comparison between the received data and a correct version of data is inherent to any bit error calculator.

With regard to claim 14, Olofsson et al discloses a Block 801 in which link quality parameters of an RF link are measured (channel analyzer). Link quality parameters

include C/I, signal strength, time dispersion on burst level, and BER (channel characteristic) (column 11, lines 34-41). In block 811, optimum combination of modulation and channel coding schemes is selected (power control set point calculator) (column 11, line 66 – column 12, line 5).

With regard to claim 19, Olofsson et al discloses block 803 in which the distribution of the channel characteristic measures may be calculated statistically in terms of mean values and variances (variance calculator) of link quality parameters (column 11, lines 43-15). In block 811, optimum combination of modulation and channel coding schemes is selected (determining ... set point) (column 11, line 66 – column 12, line 5).

With regard to claim 20, Olofsson et al discloses link quality parameters that include C/I, signal strength (signal symbol strength), time dispersion on burst level, and BER (column 11, lines 34-41). In block 803, the distribution of the channel characteristic measures may be calculated statistically in terms of mean values and variances (calculating a variance) of link quality parameters (column 11, lines 43-15).

With regard to claim 23, Olofsson et al discloses link quality parameters that include C/I, signal strength, time dispersion on burst level, and BER (signal symbol error rate) (column 11, lines 34-41). In block 803, the distribution of the channel characteristic measures may be calculated statistically in terms of mean values and variances (signal variance) of link quality parameters (column 11, lines 43-15).

With regard to claim 25, Olofsson et al discloses that the disclosed method for selecting a combination of modulation and channel coding schemes on a RF link as

illustrated in Fig. 8 and Fig. 9 is performed at a receiver that may be either the mobile station (subscriber unit) or base station (column 11, line 33-35). Accordingly, Olofsson et al discloses that the base station includes a demodulator 96 (demodulating the first/demodulating the remaining) (column 9, lines 55-59). In block 811, optimum combination of modulation and channel coding schemes is selected (determining ... set point) (column 11, line 66 – column 12, line 5).

With regard to claim 26, 27 and 28, the method and mobile terminal disclosed by Olofsson et al may be applied to any RF signal, including the applicant's forward link power control sub-channel, a forward fundamental transmission channel or a forward dedicated control transmission channel.

With regard to claim 29, Olofsson et al discloses that the disclosed method for selecting a combination of modulation and channel coding schemes on a RF link as illustrated in Fig. 8 and Fig. 9 is performed at a receiver that may be either the mobile station (subscriber unit) or base station (column 11, line 33-35). Olofsson et al discloses a mobile station as illustrated in Fig. 5 (column 9, lines 9-10).

With regard to claim 30, Olofsson et al discloses a Block 801 in which link quality parameters of an RF link are measured. Link quality parameters include C/I, signal strength, time dispersion on burst level, and BER (bit error rate) (column 11, lines 34-41). In block 811, optimum combination of modulation and channel coding schemes is selected (calculating power control set point) (column 11, line 66 – column 12, line 5).

With regard to claim 31, the applicant claims the calculator for calculating the bit error rate in which the received signal symbols are compared to a predetermined

symbol sequence. A comparison between the received data and a correct version of data is inherent to any bit error calculator.

With regard to claim 32, Olofsson et al discloses a Block 801 in which link quality parameters of an RF link are measured. Link quality parameters include C/I (one channel characteristic), signal strength, time dispersion on burst level, and BER (bit error rate) (column 11, lines 34-41). In block 811, optimum combination of modulation and channel coding schemes is selected (calculating power control set point) (column 11, line 66 – column 12, line 5).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (703) 305-4684. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

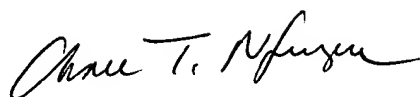
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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Wahba



August 5, 2004



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600